

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions, and listings, of claims in the application:

Application No. 10/500,590

Listing of Claims

What is claimed is:

1.-14. (Cancelled)

15. (Currently amended) A digital camera with lens for depicting a scene being composed of objects within a field of view, at various object-distances in front of said objective, a focus-selector and a focusing device for setting the focus of the camera at different distances, at least one electronic image detector with entrance plane for detection and register of image information answering to an image of the scene being depicted, plus an associated image-sharpness detector, wherein

a) said focusing device being arranged for simultaneous focusing of this instrument at different object-distances, and/or a time-sequential focusing procedure is being used,

b) an image detection being arranged in such a way that image information equivalent to at least two differently-focused images, ~~i.e.~~ i.e. with mutually different states of focus and depicting the same scene, are detected,

c) means being allocated for letting said image-sharpness detector, directly or indirectly and from each such set of corresponding differently-focused images, select/extract and forward such components/parts of the image information, which contribute to the most optimal picture definition and let this said selected image information from the same set of mutually corresponding pictures, merge into a final image with better resolution than the differently-focused images detected individually, and

d) means being arranged for selecting individual focus-distances, using said focus-selector, answering to at least one of said differently-focused images, this constituting an optional pre-selection of individual states of focus, before image registration takes place;

wherein

the camera is furnished with a focus-registrar contrivance and at least one focus-memory,

wherein means are arranged for registration of single states of focus as well as sets of such priority-states and furthermore forward such information to said memory for saving.

16. (Currently amended) A The camera of claim 15, in continuous mode, i.e. with capacity to perform a swift time-sequential succession of exposures and further means being allotted to control and drive said focusing device by using an electronic driver-module, wherein means are arranged for automatic setting of the camera focus at said pre-selected states of focus, while image detection, i.e. said exposures, are going on.

17. (Currently amended) A The camera of claim 15, and with additional motion-sensor, calibrated counter and electronic processor, wherein means are arranged for said driver-module to electrically drive the transport of such optical elements or image-sensors, being primarily responsible for refocus and that said calibrated counter is arranged for registration of current location of said focusing elements and that this information is interacting with the processor in a procedure of converging said motion towards a required state of focus.

18.-19. (Cancelled)

20. (Currently amended) A The camera of claim ~~49~~ 15, furnished with a focus-retrieval contrivance, wherein means are provided for selecting and retrieving information from said focus-memory, this information constituting registered sets about focal states or parts thereof, i.e. in-data for controlling said focusing device.

21. (Currently amended) A The camera of claim ~~49~~ 15, and provided with a focus-indicator, wherein means are pre-arranged for visual indication of state of focus, being registered in said memory.

22. (Currently Amended) A The camera of claim 49 15, with a nullifier contrivance, wherein means are adopted for an electronic reset of said focus-memory, constituting an erasure of said registered states of focus.

23. (Cancelled)

24. (Currently Amended) A The camera of claim 15, with an interval-selector contrivance, wherein means are arranged for selecting at least one operational object-distance interval, corresponding to the focusing interval within which image detection is arranged to take place.

25. (Currently Amended) A The camera of claim 15, wherein means are arranged for automatic setting of said differently-focused images, following a programmed, pre-selected scheme for focus-distances, the preferable distribution of these being optimally even, from a depth of field-standpoint, and this constituting a set of standard focuses.

26. (Currently Amended) A The camera of claim 15, and furnished with a proximity-selector contrivance, wherein means are allotted for setting the nearest focus-distance allowed during image-detection, and this being controllable with said proximity-selector, and said procedure constituting an optional pre-selection.

27. (Currently Amended) A The camera of claim 15, having optimal-focus-selector and depth of field-selector contrivances, wherein means are arranged for selecting and focusing within the field of view with said focus-selector, on at least one object or distance of preference, for optimal image resolution and to furthermore set the depth of field-selector for an object-distance interval of priority, within which depth of field-improvement is being arranged and this said interval being located in front of and/or behind said object/distance of preference.

28. (Currently Amended) A The camera of claim 24, and provided with an electronic image blur-function wherein means are arranged for defocusing image-parts outside said object-distance intervals by using said blur-function, or replace said image parts with some other picture.

29. (Currently Amended) A The camera of claim 15, and with more than one image-sensor, wherein means are arranged for electrical connection in between sensors in order to accomplish a common read-out.

30. (Currently Amended) A The camera of claim 15, wherein said camera-objective comprises a permanently attached lens on the camera plus means being allotted for attachment of a detachable afocal add-on lens with fixed or variable magnification.

31. (Currently Amended) A The camera of claim 15, wherein an image-sensor of the camera having at least two mutually in parallel detector planes and that these surfaces are separated in order to register differently-focused images, one at each such plane.

32. (Currently Amended) A The camera of claim 15, wherein means are allocated for said selection extraction of image information by using said image-sharpness detector and by utilizing ~~said a~~ template- or image-comparison technique, and where said image-registration for respective final image and template image are independent, separate recordings and at least one of the camera settings like exposure-time, aperture size, focal length and image sensor-sensitivity differ in between these two separate registrations.